

031004

21861 U.S. PTO

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17302 U.S.PTO  
10/797255

031004

PTO/SB/05 (08-03)  
Approved for use through 07/31/2006. OMB 0651-0032  
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCEUTILITY  
PATENT APPLICATION  
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	
First Inventor	Roarty, Brian P.
Title	Implementation and Application of Phase Ch
Express Mail Label No.	EU727597507

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:  
Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

- Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
- Applicant claims small entity status.  
See 37 CFR 1.27.
- Specification [Total Pages 22] (preferred arrangement set forth below)
  - Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
- Drawing(s) (35 U.S.C. 113) [Total Sheets 8]
- Oath or Declaration [Total Sheets 2]
  - a.  Newly executed (original or copy)
  - b.  Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed)
    - i.  DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
- Application Data Sheet. See 37 CFR 1.76
- CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
- Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a.  Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i.  CD-ROM or CD-R (2 copies); or
    - ii.  Paper
  - c.  Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

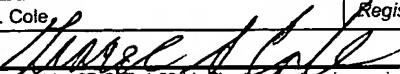
9.  Assignment Papers (cover sheet & document(s))
10.  37 CFR 3.73(b) Statement  Power of (when there is an assignee)  Attorney
11.  English Translation Document (if applicable)
12.  Information Disclosure Statement (IDS)/PTO-1449  Copies of IDS Citations
13.  Preliminary Amendment
14.  Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15.  Certified Copy of Priority Document(s) (if foreign priority is claimed)
16.  Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17.  Other: Itemization and SASE.....

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

 Continuation       Divisional       Continuation-in-part (CIP)      of prior application No. ....Prior application information: Examiner \_\_\_\_\_ Art Unit: \_\_\_\_\_  
For CONTINUATION OF DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS

 Customer Number: 37387      OR       Correspondence address below

Name	George S. Cole, Esq.		
Address	495 Seaport Court, Suite 101		
City	Redwood City	State	CA
Country	USA	Telephone	(650) 556-9510
Name (Print/Type)	George S. Cole	Registration No. (Attorney/Agent)	40,563
Signature			
Date	3/10/04		

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

031004  
21861 U.S. PTO

PTO/SB/17 (10-02)

Approved for use through 10/31/2002. OMB 0651-0032  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2003

Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)

446.00

## Complete if Known

Application Number	
Filing Date	March 10, 2004
First Named Inventor	Roarty, Brian P.
Examiner Name	
Art Unit	
Attorney Docket No.	

## METHOD OF PAYMENT (check all that apply)

 Check  Credit card  Money Order  Other  None
 Deposit Account:Deposit Account Number  
Deposit Account Name

50-0705

George S. Cole, Esq.

The Commissioner is authorized to: (check all that apply)

Charge fee(s) indicated below  Credit any overpayments

Charge any additional fee(s) during the pendency of this application

Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

## 1. BASIC FILING FEE

Large Entity	Fee Code (\$)	Fee	Small Entity	Fee Code (\$)	Fee	Fee Description	Fee Paid
	1001	740		2001	370	Utility filing fee	\$385
	1002	330		2002	165	Design filing fee	
	1003	510		2003	255	Plant filing fee	
	1004	740		2004	370	Reissue filing fee	
	1005	160		2005	80	Provisional filing fee	
	SUBTOTAL (1)			(\$)		385.00	

## 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

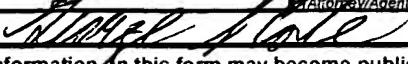
Total Claims	23	-20** =	3	X	9	=	\$18.00
Independent Claims	4	- 3** =	1	X	43	=	\$43.00
Multiple Dependent							

Large Entity	Fee Code (\$)	Fee	Small Entity	Fee Code (\$)	Fee	Fee Description
	1202	18		2202	9	Claims in excess of 20
	1201	84		2201	42	Independent claims in excess of 3
	1203	280		2203	140	Multiple dependent claim, if not paid
	1204	84		2204	42	** Reissue independent claims over original patent
	1205	18		2205	9	** Reissue claims in excess of 20 and over original patent
	SUBTOTAL (2)			(\$)		61.00

\*\*or number previously paid, if greater; For Reissues, see above

## 3. ADDITIONAL FEES

Large Entity	Fee Code (\$)	Fee	Small Entity	Fee Code (\$)	Fee	Fee Description	Fee Paid
	1051	130		2051	65	Surcharge - late filing fee or oath	
	1052	50		2052	25	Surcharge - late provisional filing fee or cover sheet	
	1053	130		1053	130	Non-English specification	
	1812	2,520		1812	2,520	For filing a request for ex parte reexamination	
	1804	920*		1804	920*	Requesting publication of SIR prior to Examiner action	
	1805	1,840*		1805	1,840*	Requesting publication of SIR after Examiner action	
	1251	110		2251	55	Extension for reply within first month	
	1252	400		2252	200	Extension for reply within second month	
	1253	920		2253	460	Extension for reply within third month	
	1254	1,440		2254	720	Extension for reply within fourth month	
	1255	1,960		2255	980	Extension for reply within fifth month	
	1401	320		2401	160	Notice of Appeal	
	1402	320		2402	160	Filing a brief in support of an appeal	
	1403	280		2403	140	Request for oral hearing	
	1451	1,510		1451	1,510	Petition to institute a public use proceeding	
	1452	110		2452	55	Petition to revive - unavoidable	
	1453	1,280		2453	640	Petition to revive - unintentional	
	1501	1,280		2501	640	Utility issue fee (or reissue)	
	1502	460		2502	230	Design issue fee	
	1503	620		2503	310	Plant issue fee	
	1460	130		1460	130	Petitions to the Commissioner	
	1807	50		1807	50	Processing fee under 37 CFR 1.17(q)	
	1806	180		1806	180	Submission of Information Disclosure Stmt	
	8021	40		8021	40	Recording each patent assignment per property (times number of properties)	
	1809	740		2809	370	Filing a submission after final rejection (37 CFR 1.129(a))	
	1810	740		2810	370	For each additional invention to be examined (37 CFR 1.129(b))	
	1801	740		2801	370	Request for Continued Examination (RCE)	
	1802	900		1802	900	Request for expedited examination of a design application	
	Other fee (specify)			(\$)			
	*Reduced by Basic Filing Fee Paid			SUBTOTAL (3)		0	

SUBMITTED BY		(Complete if applicable)		
Name (Print/Type)	George S. Cole	Registration No. (Attorney/Agent)	40,563	Telephone (650) 556-9510
Signature		Date	3/10/04	

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Mail Stop PATENT APPLICATIONS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Mar. 10th, 2004

Re: Patent Application for  
"Implementation and Application of Phase Change in a Fluid Flowing Through A Nozzle"  
Brian Roarty, Inventor

Dear Sirs:

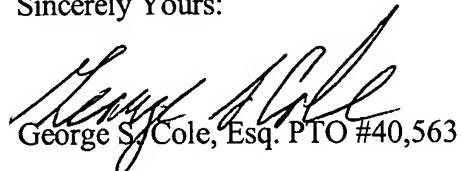
On March 10th, 2004, I am sending by Express Mail the above application.

The above-named inventor and application qualify for and assert small entity status.

I hereby authorize use of my deposit account, 500705, with User ID FINA, to cover all necessary fees and costs for this application.

I ask that on receipt the enclosed checklist of received materials be filled out and returned using the self-addressed, stamped envelope I have enclosed.

Sincerely Yours:



George S. Cole, Esq. PTO #40,563

## EXPRESS MAIL CERTIFICATE

"Express Mail" mailing label No: \_\_\_\_\_ EU727597507US \_\_\_\_\_

Date of Deposit: \_\_\_\_\_ Mar. 10th, 2003 \_\_\_\_\_

I hereby certify that the following documents:

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- attorney cover letter;
- a transmittal cover;
- a power of attorney;
- an inventor's declaration;
- a fee transmittal, with authorization to charge a deposit account;
- an Information Disclosure Statement;
- a specification with 22 pages
- claims;
- 12 drawings on 8 separate sheets,
- payment (check or Deposit Account Authorization or both);
- a copy of the Express Mail Certificate;
- itemization of what was received by the US PTO

and,

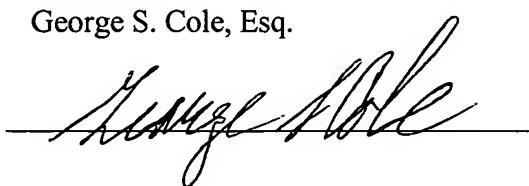
- a SASE return envelope for the above itemization

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are being deposited in a single envelope with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and such envelope is addressed to:

**MAIL STOP PATENT APPLICATION**  
**Commissioner for Patents**  
**P.O. BOX 1450**  
**Alexandria, VA 22313-1450.**

George S. Cole, Esq.



## Itemization of Mailing

“Express Mail” mailing label No: \_\_\_\_\_ EU727597507US \_\_\_\_\_

Date of Deposit: \_\_\_\_\_ Mar. 10th, 2003 \_\_\_\_\_

I hereby certify that the following documents:

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- attorney cover letter;
- a transmittal cover;
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- an inventor's declaration;
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- a specification with 22 pages
- claims;
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- payment (check or Deposit Account Authorization or both);
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- itemization of what was received by the US PTO

and,

- a SASE return envelope for the above itemization

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are being deposited in a single envelope with the United States Postal Service “Express Mail Post Office to Addressee” service under 37 C.F.R. 1.10 on the date indicated above and such envelope is addressed to:

**MAIL STOP PATENT APPLICATION**  
**Commissioner for Patents**  
**P.O. BOX 1450**  
**Alexandria, VA 22313-1450.**

George S. Cole, Esq.

